

## INTERNATIONAL SEARCH REPORT

International Application No.  
PCT/GB2004/004852A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 E21B21/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 817 739 A (JETER ET AL) 4 April 1989 (1989-04-04) abstract; figures column 3, line 24 - column 4, line 32	1,30,84
A		53,83
A	US 4 936 397 A (MCDONALD ET AL) 26 June 1990 (1990-06-26) abstract; figures	1
A	WO 01/06086 A (CHURCHILL, ANDREW, PHILIP) 25 January 2001 (2001-01-25) cited in the application abstract; figures	1
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 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

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- \*E\* earlier document but published on or after the international filing date
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- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Date of the actual completion of the international search

3 March 2005

Date of mailing of the international search report

14/03/2005

Name and mailing address of the ISA

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C(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 96/30621 A (UWG LIMITED; DAVY, MARK, STANLEY; BOYD, MARK) 3 October 1996 (1996-10-03) cited in the application abstract; figures -----	1
A	US 5 890 540 A (PIA ET AL) 6 April 1999 (1999-04-06) cited in the application abstract; figures -----	1
A	US 5 901 796 A (MCDONALD ET AL) 11 May 1999 (1999-05-11) cited in the application abstract; figures -----	1
A	US 4 298 077 A (EMERY ET AL) 3 November 1981 (1981-11-03) cited in the application abstract; figures -----	1
A	US 5 499 687 A (LEE ET AL) 19 March 1996 (1996-03-19) cited in the application abstract; figures -----	1
A	US 5 443 129 A (BAILEY ET AL) 22 August 1995 (1995-08-22) cited in the application abstract; figures -----	1
A	US 5 609 178 A (HENNIG ET AL) 11 March 1997 (1997-03-11) cited in the application abstract; figures -----	1

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 4817739	A	04-04-1989	NONE			
US 4936397	A	26-06-1990	NONE			
WO 0106086	A	25-01-2001	AU AU CA EP WO NO US	778372 B2 6169800 A 2381360 A1 1198656 A1 0106086 A1 20020229 A 6820697 B1	02-12-2004 05-02-2001 25-01-2001 24-04-2002 25-01-2001 06-03-2002 23-11-2004	
WO 9630621	A	03-10-1996	EP WO US	0815343 A1 9630621 A1 5979572 A	07-01-1998 03-10-1996 09-11-1999	
US 5890540	A	06-04-1999	GB	2302895 A ,B	05-02-1997	
US 5901796	A	11-05-1999	NONE			
US 4298077	A	03-11-1981	NONE			
US 5499687	A	19-03-1996	US	4889199 A	26-12-1989	
US 5443129	A	22-08-1995	GB NO	2291448 A ,B 952003 A	24-01-1996 23-01-1996	
US 5609178	A	11-03-1997	AU AU CA GB NO	719036 B2 6584396 A 2186173 A1 2305681 A ,B 964118 A	04-05-2000 10-04-1997 29-03-1997 16-04-1997 01-04-1997	

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